1. Write a Java program that declares four integer variables: a, b, c, and d. Then, write an if statement that checks whether the sum of a and b is greater than the sum ofc and d. If the condition is true, the program should output a message indicating that the sum of a and b is greater than the sum ofc and d.

Program:

import java.util.Scanner;

public class Program\_1 {

public static void main(String[] args) {

Scanner sc=new Scanner(System.***in***);

int a=sc.nextInt();//getting value of a

int b=sc.nextInt();//getting value of b

int c=sc.nextInt();//getting value of c

int d=sc.nextInt();//getting value of d

//checking whether the sum of a and b is greater than the sum of c and d using if statement

if((a+b) > (c+d)){

System.***out***.println("The sum of a and b is greater than the sum of c and d."); //print statement if a+b is greater

}else{

System.***out***.println("The sum of a and b is not greater than the sum of c and d.");//print statement if a+b is smaller

}

}

}

Input:

5

4

3

2

Output:

The sum of a and b is greater than the sum of c and d.

2. Have a variable store an integer. Create an if statement to find out if it's an even number.

Hint: Use operator %.

Program:

import java.util.Scanner;

public class Program\_2 {

public static void main(String[] args) {

Scanner sc=new Scanner(System.***in***);// declaring scanner class

int a=sc.nextInt();//getting input from scanner

//logic to check integer is even using % operator

if(a%2 == 0){

System.***out***.println("The number "+ a +" is even" );//print statement if input is even

}else{

System.***out***.println("The number "+ a +" is odd" );//print statement if input is even

}

}

}

Input: 35

Output: The number 35 is odd

The number 35 is odd

3. Write a program to print the characters from A to Z.

Program:

public class Program\_3 {

public static void main(String[] args) {

//condition to print A to Z

for(char c='A'; c<='Z';++c){

System.***out***.println(c);

}

}

}

Output:

A

B

C

D

E

F

G

H

I

J

K

L

M

N

O

P

Q

R

S

T

U

V

W

X

Y

Z

4. Write a java program to get 2 numbers from the user and swap their values without any loss of data. You can make use of additional variable for swapping. Print the corresponding swapped

Program:

import java.util.Scanner;

public class Program\_4 {

public static void main(String[] args) {

Scanner sc=new Scanner(System.***in***);

System.***out***.println("Enter the first number:");//getting 1st number from scanner

int num1=sc.nextInt();

System.***out***.println("Enter the second number:");//getting 2nd number from scanner

int num2=sc.nextInt();

//Condition for swap

int swap=num1;

num1=num2;

num2=swap;

System.***out***.println("The first number is "+ num1);//Printing swapped 1st number

System.***out***.println("The second numer is "+ num2);//Printing swapped 2nd number

}

}

Output:

Enter the first number:

10

Enter the second number:

25

The first number is 25

The second numer is 10

5. Write a program to check if a number is prime or not.

Program:

import java.util.Scanner;

public class Program\_5 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.***in***);//declaring scanner class

System.***out***.print("Enter a number: ");//getting input from scanner

int num = sc.nextInt();

//condition to check if input is prime

if (*isPrime*(num)) {

System.***out***.println(num + " is a prime number.");//print statement if input is prime number

} else {

System.***out***.println(num + " is not a prime number.");//print statement if input is not prime number

}

}

//a boolean method that returns true if the number is prime, false otherwise

public static boolean isPrime(int n) {

if (n <= 1) {

return false;

}

// loop from 2 to the square root of the number

for (int i = 2; i \* i <= n; i++) {

// check if the number is divisible by i

if (n % i == 0) {

// the number is not prime, return false

return false;

}

}

// the number is prime, return true

return true;

}

}

Output:

Enter a number: 37

37 is a prime number.

6. Write a program to print the factorial of a given number. For Ex: 5!=120

Program

import java.util.Scanner;

public class Program\_6 {

public static void main(String[] args) {

Scanner sc=new Scanner(System.***in***);//creating scanner class

System.***out***.println("Enter a number:");//getting input from scanner

int num=sc.nextInt();

int factorial =1;// the variable to store the factorial

// loop from 1 to n and multiply the numbers

for(int i=1; i<=num; ++i){

factorial \*=i;

}

System.***out***.println("The factorial of " + num +" is " + factorial + ".");//printing the factorial

}

}

Output:

Enter a number:

10

The factorial of 10 is 3628800.

7. Write a program to print the length of the given string. String msg="Guvi Geek"

Program:

import java.util.Scanner;

public class Program\_7 {

public static void main(String[] args) {

String msg = "Guvi Geek";// creating a string

System.***out***.println("The length of "+msg + " is "+msg.length());//printing the length

}

}

Output:

The length of Guvi Geek is 9

8. Write a program To print "Welcome to Guvi" 10 times.

Program:

public class Program\_8 {

public static void main(String[] args) {

// loop to print given message 10 times

for (int i = 0; i < 10; i++) {

System.***out***.println("Welcome to Guvi");//printing given message 10 times

}

}

}

Output:

Welcome to Guvi

Welcome to Guvi

Welcome to Guvi

Welcome to Guvi

Welcome to Guvi

Welcome to Guvi

Welcome to Guvi

Welcome to Guvi

Welcome to Guvi

Welcome to Guvi

9. Write a program to check whether the person is a senior citizen or not.

Program:

import java.util.Scanner;

public class Program\_9 {

public static void main(String[] args) {

Scanner sc=new Scanner(System.***in***);//creating scanner class

System.***out***.println("Enter name: ");//getting name from scanner

String name = sc.nextLine();

System.***out***.println("Enter age: ");//getting age from scanner

int age= sc.nextInt();

//condition to check if the person is senior citizen or not

if(age>=60){

System.***out***.println(name+ " is a Senior citizen.");

}else{

System.***out***.println(name+ " is not a Senior citizen.");

}

}

}

Output:

Enter name:

Vinoth

Enter age:

26

Vinoth is not a Senior citizen.

10. Write a program to Count Number of Digits in an Integer.

Program:

import java.util.Scanner;

public class Program\_10 {

public static void main(String[] args) {

Scanner sc=new Scanner(System.***in***);//creating scanner

System.***out***.println("Enter an integer: ");//getting an integer to count digits

int num= sc.nextInt();

//declaring initial value for count

int count = 0;

//condition to count the digits

while (num !=0){

num = num/10;

++count;

}

System.***out***.println("Number of digits is: " + count);//print the value of count

}

}

Output:

Enter an integer:

123456789

Number of digits is: 9